

Work Order ID 132628

132628

Page 1

Thursday, May 07, 2015 3:00:20 PM

Item ID: D4037-3 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Fwd Crossbeam
 Start Date: 5/18/2015 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 5/18/2015 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: MLJ Date: MAY 08 2015 Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr								
D4037	D								

100 0.00
 100
 Waterjet
 FLOW CNC Waterjet
 6061 1" x 15"
 Memo
 Cut blank as per file D4037-3_BLANK
 1 0 JM15-5-25

110 0.00
 110
 HAAS 1
 HAAS CNC vertical machine #1
 Memo
 MACHINE AS PER FOLI FA878 AND DWG
 FOLIO REV: D
 DWG REV: D
 DEBURR
 1 0 DAS 44 9-89 15/06/08

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td style="border: none;"></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																	
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Thursday, May 07, 2015 3:00:20 PM

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Hand Finishing

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Work Order ID 132628

Thursday, May 07, 2015 3:00:20 PM

132628

Page 3

Item ID: D4037-3 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Fwd Crossbeam
 Start Date: 5/18/2015 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 5/18/2015 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150 *150* Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum <i>M 131545.</i> Memo	0.00 0.00	<i>START: 8:50</i> <i>OVEN T: 300°</i> <i>FINISH: 9:20</i>			<i>1</i>	<i>0</i>	<i>15-6-9</i>	<i>34</i> <i>9-89</i>
160 *160* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00				<i>①</i>			<i>DAS</i> <i>38</i> <i>9-89</i> JUN 09 2015
170 *170* Packaging Packaging	Identify as per dwg & Stock Location: _____ <i>PPP 132198</i> Memo	0.00 0.00				<i>1</i>		<i>DAS</i> <i>27</i> <i>9-89</i> JUN 10 2015	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
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Past Expiry Date ☐	Manufacturing Process ☐				
Misidentified ☐	Past Due ☐	OTHER : _____			

Work Order ID 132628***132628***

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Thursday, May 07, 2015 3:00:20 PM

Item ID: D4037-3

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Fwd Crossbeam

Start Date: 5/18/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 5/18/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC21- Final Inspection - Work Order Release	0.00							
180									
QC	Memo	0.00							
Quality Control									

MLJ JUN 11 2015

MLJ JUN 11 2015

DQA: _____ Date: _____



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Picklist Print

Thursday, May 07, 2015 3:00:23 PM

Page 1

Work Order ID: 132628

132628

Parent Item: D4037-3

D4037-3

Parent Item Name: Fwd Crossbeam

Start Date: 5/18/2015

Required Date: 5/18/2015

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A NEW ISSUE 09-12-14 JLM VERIFIED BY:EC IPP
REV:B AS PER REV B 10-04-19 JLM VERIFIED BY:EC IPP REV:D AS
PER ECN 11-554 11-05-24 JLM VERIFIED BY:DD IPP REV C:AS PER
ECN 10-563 10-09-28 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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M6061T6B1.000X15.00
0

Purchased

No

100

f

3.0000

3.9

M6061T6B1 000X15 000

**

4

Jm15-5-25

6061-T6 Bar 1.00 x 15.00

Location

Loc Qty

Loc Code

MAT007

115173

124443

1

132360

132360

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																		
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Turning Sequence ☐																																																																						
OTHER : ☐																																																																						

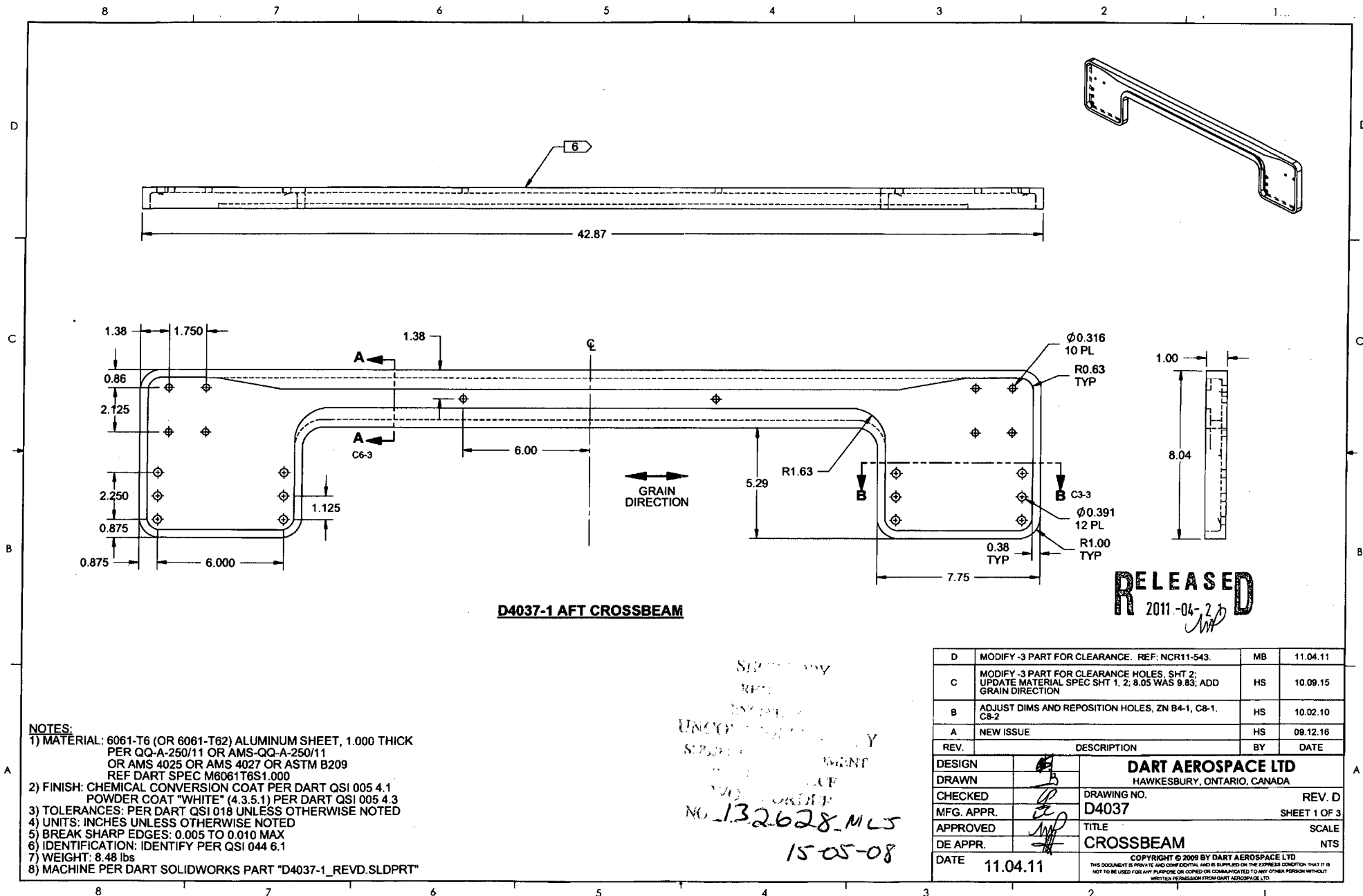
DART AEROSPACE LTD		Work Order: 132628
Description: Fwd Crossbeam		Part Number: D4037-3
Inspection Dwg: D4037	Rev: D	Page 1 of 1

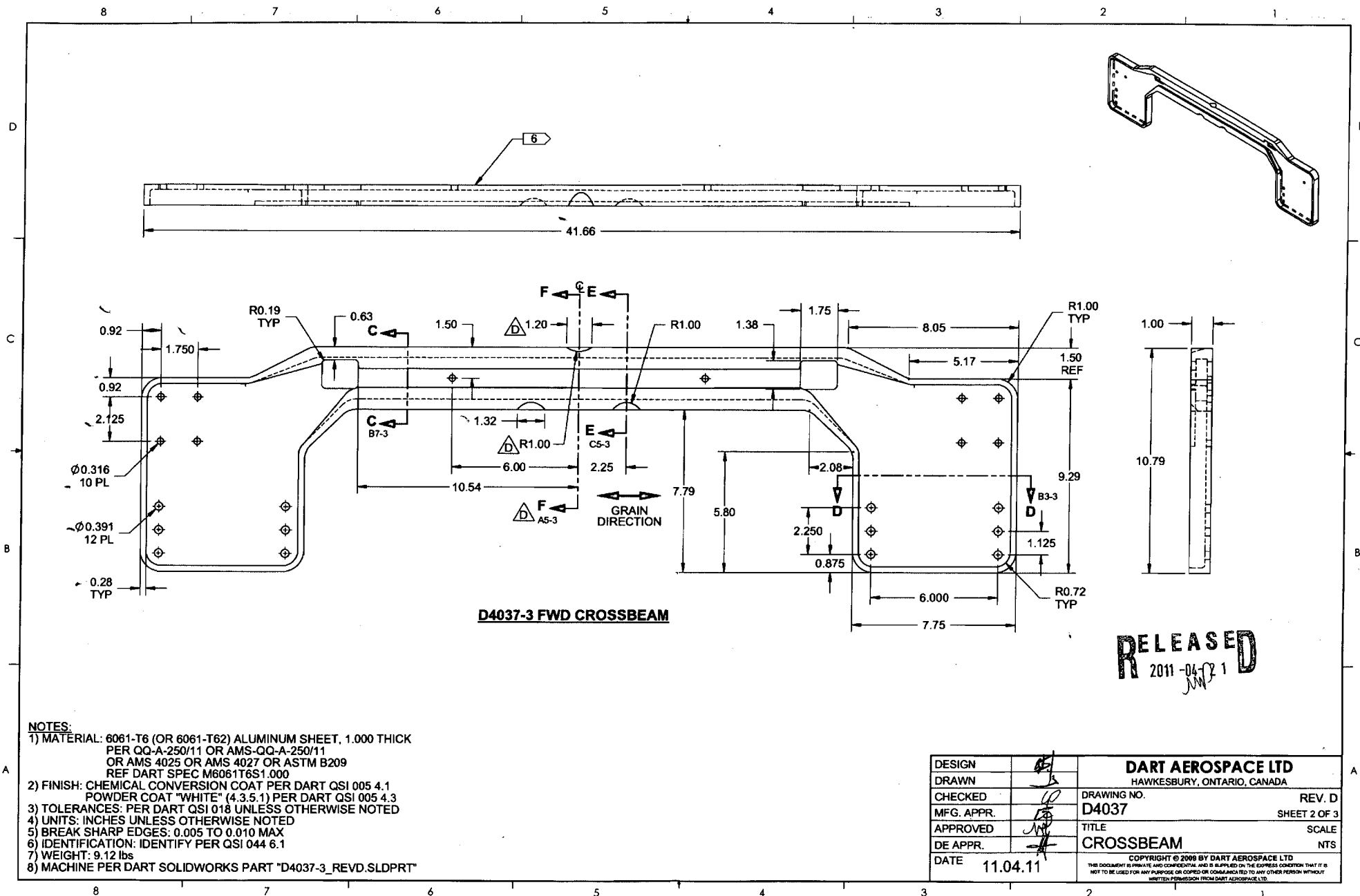
FIRST ARTICLE INSPECTION CHECKLIST

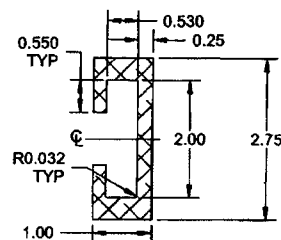
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
41.66	+/-0.030	41.66	✓		Tape	FK-05
0.92	+/-0.030	0.919	✓		Vern	FK-04
1.75	+/-0.030	1.751	✓		"	"
0.92	+/-0.030	0.919	✓		"	"
2.125	+/-0.010	2.125	✓		"	"
Ø0.316	+0.006/-0.001	0.316	✓		"	"
Ø0.391	+0.006/-0.001	0.391	✓		"	"
0.28	+/-0.030	0.282	✓		"	"
1.32	+/-0.030	1.32	✓		"	"
7.79	+/-0.030	7.79	✓		Vern	CNC-02
5.80	+/-0.030	5.80	✓		Vern	FK-04
2.250	+/-0.010	2.249	✓		"	"
0.875	+/-0.010	0.875	✓		"	"
6.000	+/-0.010	5.999	✓		"	"
7.75	+/-0.030	7.75	✓		Vern	CNC-02
1.125	+/-0.010	1.125	✓		"	FK-04
9.29	+/-0.030	9.29	✓		"	CNC-02
1.75	+/-0.030	1.750	✓		Vern	FK-04
1.38	+/-0.030	1.375	✓		"	"
1.50	+/-0.030	1.50	✓		"	"
0.63	+/-0.030	0.625	✓		"	"
1.00	+/-0.030	1.015	✓		"	"
10.79	+/-0.030	10.79	✓		"	"
3.00	+/-0.030	3.00	✓		"	"
2.00	+/-0.030	1.998	✓		"	"
0.25	+/-0.030	0.251	✓		Mic	118-120
0.530	+/-0.010	0.522	✓		Vern	FK-04
0.35	+/-0.030	0.365	✓		"	"
0.35	+/-0.030	0.365	✓		"	"
R0.13	+/-0.030	0.125	✓		R-G.	

Measured by: 44		Audited by: [Signature]		Preliminary Approval:	
Date: 15/06/08		Date: 15/6/8		Date:	

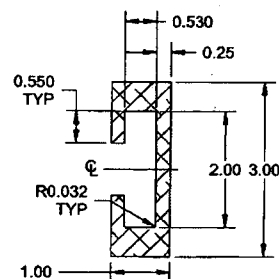
Rev	Date	Change	Revised by	Approved
A	10.06.08	New Issue	KJ	
B	10.10.07	Dimensions updated per Dwg Rev C	KJ	
C	11.06.21	Dwg Rev updated	KJ	[Signature]



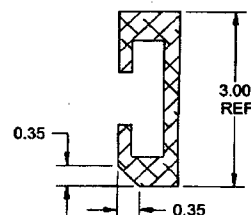




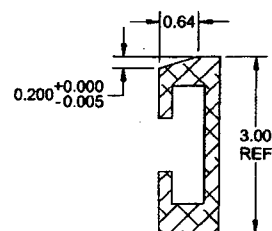
SECTION A-A B6-1
SCALE 2X



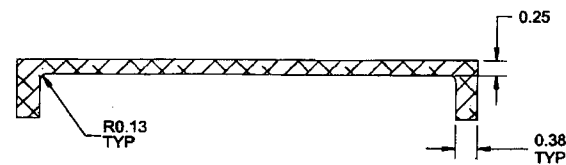
SECTION C-C B6-2
SCALE 2X



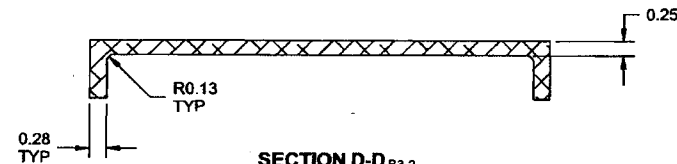
SECTION E-E C5-2
SCALE 2X



SECTION F-F B5-2
SCALE 2X



SECTION B-B B2-1
SCALE 2X



SECTION D-D B3-2
SCALE 2X

RELEASED
2011-04-31
JW

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO. D4037	REV. D
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